

*Shaping a Health Statistics
Vision for the 21st Century:
3 Tactics for
State Data Systems*

National Committee on Vital and Health Statistics

4 March 2004

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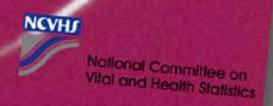
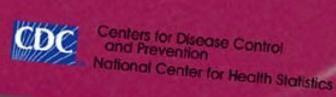
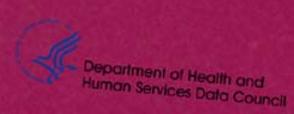
Population and Public Health Information Services

Topics

- *Shaping a Health Statistics Vision for the 21st Century* (NCVHS, 2002)
 - Definitions
 - Mission
 - Vision
 - Conceptual framework
 - Principles
- State health data
 - Archetypical state data systems
 - Archetypical problems
- 3 tactics for state health data systems

Final Report
November 2002

Shaping a Health Statistics Vision for the 21st Century



Defining Health Statistics

Numerical data that characterize the health of a population and the influences and actions that affect the health of a population.

Defining Health Statistics Enterprise

- . . . infrastructure and the activities necessary to produce health statistics
- Public and private organizations and individuals at all geopolitical levels that perform the processes of health statistics
- Highly decentralized
- Includes organizations that collect, analyze, and disseminate data on the health of populations and the factors that influence health

Mission of the Health Statistics Enterprise

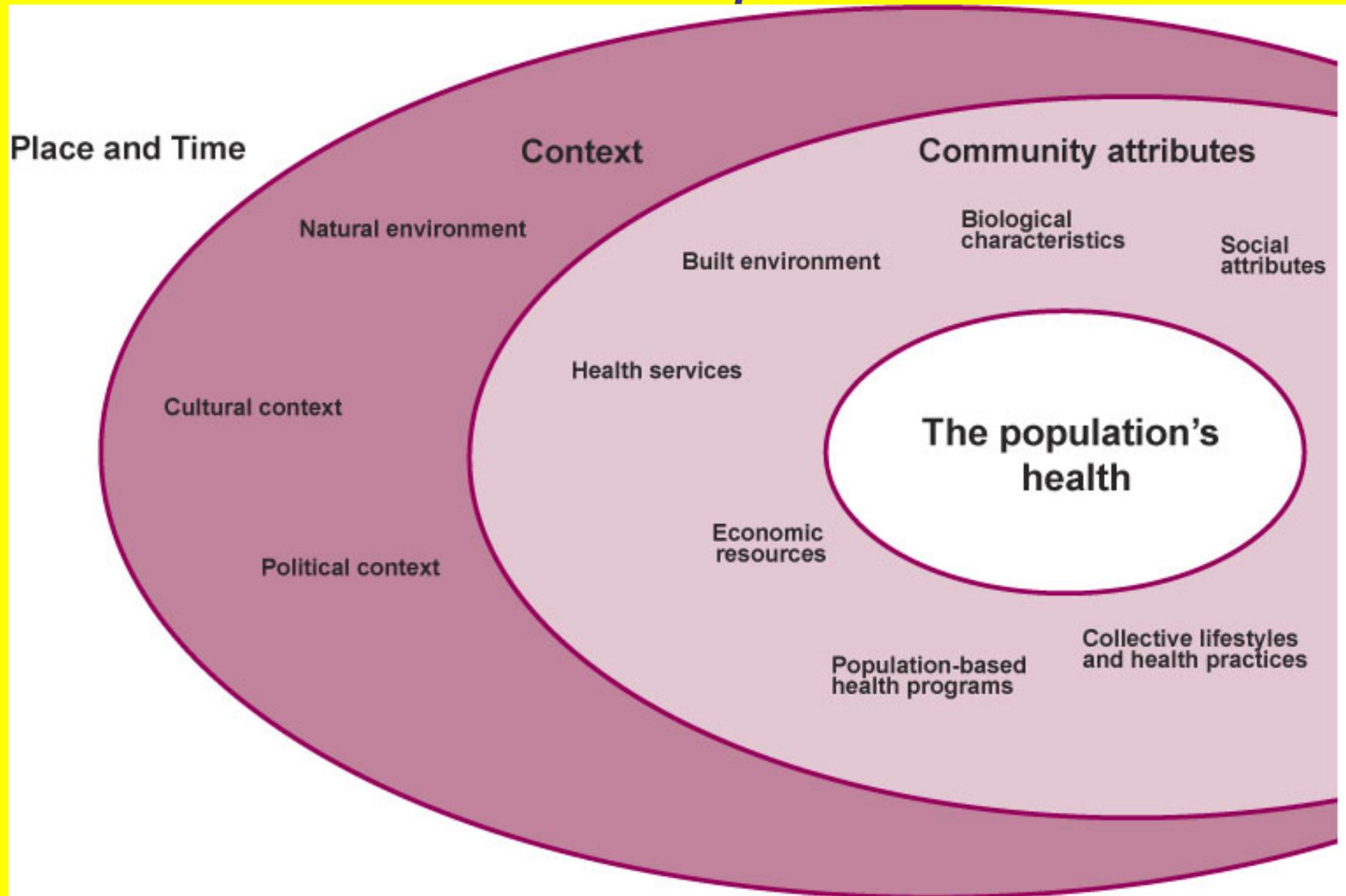
- . . . to efficiently provide timely, accurate, and relevant information that can be used to improve the nation's health.

Vision for Health Statistics Enterprise: Overarching Conceptual Framework

...helps to maintain a focus on needed data and guides the health statistics enterprise.

- Focuses on health, the population, and the community
- Emphasizes distribution and level of health
- Delineates major influences on health
- Defines research agenda for improving the population's health

Influences on the Population's Health



Vision for Health Statistics Enterprise: Ten Guiding Principles

1. Enterprise-wide planning and coordination
2. Broad collaboration among data users, producers, and suppliers at local, state, and national levels
3. Rigorous policies and procedures for protecting privacy, confidentiality, and security
4. Flexibility to identify and address emergent health issues and needs
5. Use of data standards

Vision for Health Statistics Enterprise: Ten Guiding Principles

6. Sufficient detail at different levels of aggregation
7. Integrated, streamlined data collection for multiple purposes
8. Timely production of valid and reliable health statistics
9. Appropriate access to and ease of use of health statistics
10. Continuous evaluation of the completeness, accuracy, and timeliness of health statistics and the ability of the health statistics enterprise to support their production

State Health Data

Archetypical State Data Systems

- Claims and billing
 - AIDS treatment
 - Breast and cervical cancer prevention programs
 - Dental
 - Early Intervention
 - Emergency Medical Services
 - Family Planning
 - Medicaid
 - Acute care
 - Clinics
 - Hospitals
 - Individual providers
 - Long term care
 - Substance abuse services
 - Tobacco prevention
 - WIC
- Client case management
 - AIDS Drug Assistance Program
 - Child and adolescent service encounters
 - Early Intervention
 - Family Planning
 - Healthy Start
 - Homecare and hospice
 - Medicaid eligibility
 - Pediatric nutrition services
 - Refugee and immigrant health
 - School health
 - Services for children with special health care needs
 - Substance abuse
 - WIC

Archetypical State Data Systems

- Cost reports
 - Ambulatory care centers
 - Bad debt and free care
 - Home health agencies
 - Hospitals
 - Mental health centers
 - Neighborhood health centers
 - Nursing homes
 - Substance abuse services
- Encounters
 - Ambulatory surgery
 - Cardiac surgery
 - Emergency departments
 - Hospital discharges

Archetypical State Data Systems

- Environmental health
 - Asthma
 - Emissions Inventory System
 - Environmental exposure reports
 - Food monitoring
 - Ground water and solid waste information system
 - Hazardous substance emergency reports
 - Hazardous waste information reporting system
 - Radon assessments
 - Restaurant monitoring
 - Swimming pool and bathing beach water quality
 - Water quality
- Facility surveys and reports
 - Abuse reports
 - Home health
 - Hospitals
 - Nursing homes
 - Annual surveys
 - Ambulatory care
 - Home health
 - Hospitals
 - Mental health
 - Neighborhood health centers
 - Nursing homes and long term care facilities
 - Substance abuse services
 - Health care facility complaints
 - Medical errors

Archetypical State Data Systems

- Licensure, health facilities and services
 - Adult care homes
 - Ambulances
 - Ambulatory surgery centers
 - Assisted living centers
 - Dialysis centers
 - Home health agencies
 - Hospitals
 - Mental health centers
 - Mental retardation homes
 - Neighborhood health centers
 - Nursing homes and long term care facilities

Archetypical State Data Systems

- Licensures, health professionals
 - Acupuncturists
 - Adult care home administrator
 - Asbestos abatement technicians
 - Audiologists
 - Dentist
 - Dental hygienist
 - Dietitian
 - Emergency medical technicians
 - Lead abatement technicians
 - Nurse
 - Nurse midwife
 - Nursing home administrator
 - Optometrists
 - Pharmacist
 - Physical therapists
 - Physician
 - Physician assistant
 - Podiatrists
 - Veterinarians

Archetypical State Data Systems

- Occupational health
 - Census of Fatal Occupational Injuries
 - Fatal Accident Circumstances Evaluation system
 - Sentinel Event Notification System for Occupational Risks
 - Survey of Occupations and Industries
- Population based surveys
 - Behavioral Risk Factor Surveillance Systems
 - Community health
 - HIV Family of Seroprevalence Surveys
 - Insurance coverage
 - Pregnancy Risk Assessment Monitoring System
 - Smoking and tobacco use
 - Youth Risk Behavior Survey
 - Youth substance abuse

Archetypical State Data Systems

- Professional association memberships
 - Dental hygienist
 - Dentist
 - Nurse
 - Nurse practitioners
 - Pharmacist
 - Physician

Archetypical State Data Systems

- Registries
 - Adverse Pregnancy Reporting System
 - Births
 - Cancer incidence
 - Congenital anomalies
 - Deaths
 - Diabetes
 - Divorces
 - Genetic diseases
 - Immunization
 - Induced termination of pregnancies
 - Lead poisoning
 - Linked births and deaths
 - Marriages
 - Maternal mortality review
 - National Violent Death Reporting System
 - Newborn hearing
 - Newborn screening adverse outcomes
 - Perinatal mortality monitoring
 - Stillbirths
 - Trauma
 - Traumatic brain and spinal cord injuries

Archetypical State Data Systems

- Reportable diseases and conditions
 - AIDS/HIV
 - Burn Injury Reporting System
 - Chicken pox
 - Chlamydia
 - Eastern equine encephelitis
 - Gonorrhea
 - Hepatitis B, C
 - Lyme disease
 - Measles
 - Mumps
 - Polio
 - Rabies
 - Rubella
 - Salmonella
 - Syphilis
 - Tuberculosis
 - Vaccine reactions
 - West Nile virus
 - Work-related carpal tunnel syndrome
 - Work-related injuries to teens

Archetypical Problems

152 data sets:

1. Unifying conceptual framework?

- Population health focus
- Models of population

2. Inter-operability?

- Common identifiers
- Common definitions
- Common content
- Common codes
- Common transaction standards

3. Communication among. . . ?

- Data providers
- Data collectors
- Data analysts

*First Tactic—Conceptual:
Learning What Data We Have and
What We Don't Have*

- Population health focus
- Models of population health

Population Health Focus

Population health focus implies:

1. Populations, *not* individuals

- Populations not merely aggregations of individuals
- Unique characteristics of populations, including dispersion of health outcomes and disparities
- Differences between causes of incidence and causes of individual cases
- Variation between populations as well as variation within populations

2. Health, not disease or absence of disease

3. Proximate as well as distal influences on health of populations

4. Prevention, with priority given to:

- Influences with greatest potential for most efficient population prevention strategies

Population Health Focus

- Assumptions
 - Population health is ***not*** individual health aggregated or writ large
 - Multiple factors affect population health
 - Information needs for health policy extend far beyond health care, health status, and health outcomes

Population Health Focus

- Implications of assumptions
 - No single data set will suffice and no static repository of data sets will suffice for meeting information needs for health policy
 - Keys to understanding population health and meeting health policy needs:
 - Inter-sectoral approach to data
 - Data set and data record linkage

Population Health Models

- Provide framework for:
 - Formal, concept-based audits and assessments of data investments
 - Re-orienting data investments through identifying gaps and imbalances
 - Increasing returns on data investments

Second Tactic—Methodological: Increasing Data Set Inter-operability

- Increasing data set interoperability through
 - Common identifiers, with
 - Common variable definitions,
 - Common content,
 - Common codes, and
 - Common transaction standards
- Not
 - Common health identification numbers

Third Tactic—Procedural: Fostering Collaboration

- 152 data sets
 - Different data set holders
 - Different data set release protocols
 - Different data set mandates
 - Different data set governing legislation
 - Different data set
 - Programmers
 - Analysts
 - Researchers

Current Organizational Models for Meeting Information Needs for Health Policy

- Organizational governance continuum
 - Governmental: Australian Institute for Health and Welfare, U. S. state health data centers, CDC, AHRQ
 - Quasi-governmental: Canadian Institute for Health Information, UK public health observatories
 - Non-governmental: Manitoba Centre for Health Policy

Organizational Models

- Current organizational models
 - No single correct organizational model exists
 - Choice of organizational model needs to be determined by
 - National, state, or provincial climate and culture
 - Professional resources
 - Recognition of strengths and requirements of each stakeholder
 - Information needs

Organizational Models

- Virtual network--new point on the organizational governance continuum
 - Ongoing, highly structured collaboration among participant organizations and individuals within clear legal or contractual framework
 - Builds on strengths and capabilities of each participant, both organizational and individual
 - Distributes functions and responsibilities to where most appropriate
 - Maximizes collaboration, inter-sectoral approaches, linkage options
 - Recognizes need for flexible funding

Organizational Models

- Requirements for virtual network
 - Nerve Center
 - Assesses population health information needs
 - Establishes priorities
 - Convenes participants, stakeholders, and public
 - Coordinates planning among participants
 - Facilitates data sharing and linkage through
 - Adopting and adapting standards
 - Establishing legislative framework
 - Developing data sharing protocols and review process
 - Providing home for Human Subjects Review Board and other formal confidential data release mechanisms

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